

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A resin molding device for molding a resin molded product by injecting a molten resin into ~~a the~~ cavity of a metal mold followed by solidification, which device comprises:

a metal mold with a cavity; and

an outside air inlet part formed in ~~[[on]]~~ said metal mold and opened to an optional part of said cavity to allow the outside of said metal mold to communicate with an interior of said cavity ~~inside~~, and a stepped part formed at an inner wall of ~~within~~ said cavity of said metal mold orthogonally to the flowing direction of said molten resin injected into the cavity, an opening of said outside air inlet part to the cavity being opened at a portion of said stepped portion other than a transfer face of the cavity.

Claim 2 (Canceled).

Claim 3 (Currently Amended): A resin molding device according to claim 1 ~~[[2]]~~ wherein said outside air inlet part ~~or said slit~~ is formed in said stepped part or the boundary of steps of the stepped part.

Claim 4 (Currently Amended): A resin molding device according to claim 1 ~~or claim 2~~ wherein said stepped part is formed so as to have a plurality of continuous steps.

Claim 5 (Currently Amended): A resin molding device according to claim 1 ~~or claim 2~~ wherein said stepped part is formed so as to have a plurality of continuous steps, and said

outside air inlet part ~~or said slit~~ is formed in the state communicating with said cavity in the area between the steps.

Claim 6 (Currently Amended): A resin molding device according to claim 1 ~~or claim 2~~ which further ~~comprises~~ comprising:

a gas feeding means for forcedly feeding a prescribed gas to said outside air inlet part ~~or said slit~~ to feed said gas into said cavity through said outside air inlet part ~~or said slit~~ by said gas feeding means during and after the injection of said molten resin into said cavity.

Claim 7 (Currently Amended): A resin molding device according to claim 1 ~~or claim 2~~ which further ~~comprises~~ comprising:

a gas feeding means for forcedly feeding a prescribed gas to said outside air inlet part ~~or said slit~~ to feed said gas into said cavity through said outside air inlet part ~~or said slit~~ by said gas feeding means after the injection of said molten resin into said cavity.

Claim 8 (Withdrawn): A resin molding method for molding a resin molded product by injecting a molten resin into the cavity of a metal mold followed by solidification, which comprises injecting said molten resin in the state where it climbs over a stepped part formed within said cavity of said metal mold orthogonally to the flowing direction of said molten resin introduced into the cavity while introducing the outside air into said cavity through a prescribed outside air inlet part formed on said metal mold and opened to an optional part of said cavity to allow the outside of said metal mold to communicate with said cavity inside.

Claim 9 (Withdrawn): A resin molding method for molding a resin molded product by injecting a molten resin into the cavity of a metal mold followed by solidification, which

comprises injecting said molten resin in the state where it climbs over a stepped part formed within said cavity of said metal mold orthogonally to the flowing direction of said molten resin introduced into the cavity while introducing the outside air into said cavity through a slit formed on said metal mold to allow an optional part of said cavity to communicate with the outside of said metal mold.

Claim 10 (Withdrawn): A resin molded product molding method according to claim 8 or claim 9 wherein said outside air inlet part or said slit is formed in said stepped part or the boundary of steps of the stepped part.

Claim 11 (Withdrawn): A resin molding method according to claim 8 or claim 9 wherein said stepped part is formed so as to have a plurality of continuous steps.

Claim 12 (Withdrawn): A resin molding method according to claim 8 or claim 9 wherein said stepped part is formed so as to have a plurality of continuous steps, and said outside air inlet part or said slit is formed in the state communicating with said cavity in the area between the steps.

Claim 13 (Withdrawn): A resin molding method according to claim 8 or claim 9 wherein a prescribed gas is fed into said cavity through said outside air inlet part or said slit by a gas feeding means for forcedly feeding said gas to said outside air inlet part or said slit during and after the injection of said molten resin into said cavity.

Claim 14 (Withdrawn): A resin molding method according to claim 8 or claim 9 wherein a prescribed gas is fed into said cavity through said outside air inlet part or said slit

by a gas feeding means for forcedly feeding said gas to said outside air inlet part or said slit after the injection of said molten resin into said cavity.

Claim 15 (Withdrawn): A resin molded product molded with a resin molding device according to any one of claims 1, 2, 4, 6 and 7 or a resin molding method according to any one of claims 8, 9, 11, 13 and 14 and comprising a non-transfer part formed in said outlet air inlet part or said slit part.

Claim 16 (Withdrawn): A resin molded product molded with a resin molding device according to claim 3 or claim 5, or a resin molding method according to claim 10 or claim 12 and comprising a non-transfer part formed in said stepped part or the boundary of steps of the stepped part.

Claim 17 (Withdrawn): A resin molded product molded with a resin molding device according to claim 1 or claim 2, or a resin molding method according to claim 8 or claim 9 and by using a metal mold having a tooth part recessed part for molding the tooth part of a gear formed within said cavity on said molten resin-flowing directional downstream side from said stepped part as said metal mold, and comprising said tooth part formed thereon.

Claim 18 (New): A resin molding device according to claim 1, wherein said outside air inlet part is a slit.

Claim 19 (New): A resin molding device according to claim 1, wherein $s \geq t/10$, wherein s is a step length of said stepped part and t is a thickness of said molded product.

Claim 20 (New): A resin molding device according to claim 1, wherein said outside air inlet part comprises at least one of: a porous member, at least one fine slit, at least one clearance, or a movable member.

Claim 21 (New): A resin molding device according to claim 1, wherein said outside air inlet part is formed in a direction where said molten resin crosses over said outside air inlet part during entry of said molten resin into said cavity.

Claim 22 (New): A resin molding device according to claim 18, wherein said slit is formed having a width of about 1 to 30 μm in a direction where said molten resin crosses over said slit during entry of said molten resin into said cavity.

Claim 23 (New): A resin molding device according to claim 18, wherein said slit is formed in a circumferential direction where said molten resin crosses over said slit during entry of said molten resin into said cavity.

Claim 24 (New): A resin molding device according to claim 1, wherein said cavity has an opening diameter increasing at said stepped part as a boundary to change said molded product from a thinner part to a thicker part.

Claim 25 (New): A resin molding device according to claim 1, wherein said cavity is changed from a small opening diameter to a large opening diameter in said stepped part as a boundary to change said molded product from a thinner part to a thicker part.

Claim 26 (New): A resin molding device according to claim 1, wherein a recessed part is formed in a surface of said cavity of said resin molding metal mold between said outside air inlet part and a transfer face so as to form a protruding projection or rib on said molded product.

Claim 27 (New): A resin molding device according to claim 18, wherein a gas feeding machine is connected to said slit to introduce a prescribed gas into said cavity through said slit.

Claim 28 (New): A resin molding device according to claim 27, wherein said gas introduced by said gas feeding machine has a pressure of about 1 to 6 kgf/cm².

Claim 29 (New): A resin molding device according to claim 1, wherein said metal mold has a unitary structure.